Practical Hints for Fruit Growers. Editor of The Progressive Farmer:

To raise fruit, the first thing is to plant the orchard properly. This requires a selection of the fruit trees, adapted to your soil, climate, etc., and trees that will answer the purposes for which you plant. If you plant for home use, you should consider the flavors of the fruit to get the best quality, and also the time when they ripen, so to provide for the different seasons of the year. If you are setling for commercial purposes, your location with reference to your nearest city or a cold storage should be considered. You can do well on summer and fall varieties if you are near a market; while if you are kept away from markets and storage, you should plant varieties that will keep well, fruit that can be handled and stored without injury. Some varieties spoil easily in handling, and some scald and turn black in storage or soon after they are taken from it, as the Huntsman's favorite and the York Imperial, otherwise good apples.

Trees must be selected with reference to the time or age when they begin bearing, also with reference to quantity of fruit borne annually or biennially.

You should rely largely on your local nurserymen; they will try to provide you with the best varieties to suit your conditions. By buying near home you get fruit better adapted to your soils and climate, and will usually prove healthier and hardier.

The Northern winter varieties of apples, as the Greening, Northern Spy, etc., become fall fruit here in the Ozarks where the seasons are longer. Trees have an individuality or marked characteristics peculiar to the particular tree of which we will write at another time.

The variety to plant having been selected, the next question is what size or age of tree to plant. We have set all ages from one to six years old. Our experience has been as follows:

My father, the late Hon. Ira S. Haseltine, set the first commercial orchard in the Southwest thirty-four years ago, consisting of ninety acres, and over one hundred varieties of apples, pears, and peaches. He set some trees that were from four to six years old that are strong and bealthy and bearing well to-day. In our experience in growing over 2,000 acres of apples (everything considered), we prefer to set a tree two years old from the nursery. This two-year old apple tree can trim to make the proper head. A proper head should have a centre—that is, not two, three or more limbs of equal length, but one larger and extending above all the others; the branches should be trimmed back to make limbs, not forks.

Prepare a hole large enough for all the roots. The Stringfellow method of setting the tree after cutting off all but a single root and punching a hole with a crow-bar, did not prove as satisfactory to us as the above method. Head the tree low.

I will treat of this in another article. Do not plant deeper than they stood in the nursery. I believe too deep planting makes "root rot." The tree should be the largest at the surface of the ground, and there is where the root should start.

My father used to say, "Look at Nature, God knows how to grow a tree." Look at the oak, elm, and all trees including the seedling fruit tree, has roots spread from the surface of the ground. Nature has a reason for this to prepare the tree roots in spring and autumn for the circulation of the sap, and roots that should be near the surface to receive the heat and magnetic influence of the sun and give the tree the greatest circumference at that point, when they are planted too deep in the earth, they die. Trees will sometimes try to correct your errors by sending out a new set of roots at the surface of the earth. You hunt with the microscope in vain for the cause of "root rot" which you yourself have produced by banking the earth too high around your trees.

I will treat further the proper planting of the trees in the next article.

S. A. HASELTINE. Springfield, Mo.

The Chicago Show.

The eighth annual exhibition of poultry, pigeons, cats, dogs, and pet stock, under the auspices of The National Fanciers' and Breeders' Association of Chicago, will be held January 25th to 30th, inclusive, A. D. 1904. The officers of this association are: E. B. Eddy, president and director; E. J. W. Dietz, vice-president and director; Fred. L. Kimmey, secretary and director; Geo. G. Bates, treasurer and director; Grant Curtis, J. Lewis Draper, W. C. Hill, Prof. E. L. C. Morse, M. Wagner and Frank B. White, directors: H. N. Norton, superintendent and director, and K. J. Muir, superintendent of pigeons.

Correspondence is now being had with other well-known and leading judges and there may be additions to this list.

Arrangements have been made with The Central Passenger Associaation for railway excursion rates for this occasion.

Premium lists will be sent out December 1st to 15th, and 10,000 copies will be mailed. It is the intention to send to all interested persons. But if by mistake any should be missed, or if information of any kind is desired, apply in person of by mail to

FRED L. KIMMEY, Sec., 1213 Manhattan Building, 315 Dearborn Street, Chicago, Ill.

Ex-Senator Marion Butler says he will retire from the position of chairman of the National Populist Committee after the next Populist convention has been organized. This action, he adds ,is due to the pressure of business engagements. Mr. Butler also says the Populists will have a ticket in the field next year.

A Batch of Timely Farm Notes.

Editor of The Progressive Farmer:

One of the most serious drawbacks to the sheep industry is the disease known as sheep scab. It is contagious, and owing to its ravages farmers suffer enormous financial losses annually. The losses are due to the shedding of the wool, failure of condition and the death of the sheep. Yet despite its insidious nature, its ease of transmission, its severe effects, and its prevalance in certain localities, it is a disease which yields readily to proper treatment. If all the sheep owners of the country would dip their sheep regularly and thoroughly, it is believed that this scourge would soon be eradicated from the United States. The parasite of this disease is one of the larger mites and is easily visible to the naked eye. These mites are discovered more readily on a dark than light back-ground. They prick the skin of the sheep to obtain their food, and their bites are followed by intense itching, irritation, inflamation and the formation of crusts, or scabs, whose presence become known by the dropping off of patches of wool. In two or three months the entire body is affected. Unless properly treated, from 10 to 80 per cent of the flock die. The treatment recommended by the Bureau of Animal Industry as the most, rational, satisfactory and cheapest method of curing scab is by dipping the sheep in some liquid which will kill parasites. A number of dips have been found efficacious, most of them having a sulphur basis; of these tobacco and sulphur, and lime and sulphur, are perhaps the best known. The sheep are sheared before dipping, and the latter process is repeated after ten days. The temperature of the liquid should be from 100 to 110 degrees.

Secretary Wilson is much pleased with the reports that reach the Department from time to time of the success of the macaroni wheat venture which is being tried on his recommendation in the subarid regions of the far West. The results are all that were hoped for, and it is expected that after this year's experience the acreage of this crop will be more than doubled. Special mills are required to grind the flour, and already several mills are under construction out in Colorado. In a few years it is predicted that we will be sending macaroni to Italy, just as we have in times past, when no strike was imminent, sent coal to Newcastle.

The production of first-class, marketable broom corn has not received the attention in this country which it deserves. The demand for the product is a steady one and the average price makes it more than remunerative. Some failures have resulted in the past in attempts to grow this particular variety of corn, through a lack of understanding of what was wanted and what to do to achieve that result. Climate and soil are the leading factors that de-

termine if broom corn can be profitably grown in a locality. A sandy soil upon which good common corn will grow readily, gives the best results. There should be from two to three months of good growing weather. The climatic conditions to be found in the Mississippi valley, especially in lower Illinois are as good as any. The broom should be cut during dry weather, as rain at this time produces red straw. Good seed, of course is a prime requisite. Two quarts of seed will plant an acre. Of the two general varieties, the standard yields a brush used for making carpet, warehouse and stable brooms. The dwarf broom is much better than the standard for making small hearth brooms, whisk brooms, etc. It brings the higher price, as a rule. For common brush, the average price per ton is \$50, while for the finer dwarf varieties \$100 a ton is paid. In Illinois the same profit is derived from broom corn at \$75 a ton as from corn at 30 cents a bushel. The average price during the last twenty-five years has been \$80 per ton, and the demand during most of the last twenty-five years has been \$80 per ton and the demand during most of that time has been fully equal to the supply.

Economy in the use of lumber is being preached up and down the width and breadth of the land. Among others who are affected by the growing shortage are the railroads who use 110,000,000 ties every year merely to renew those worn out and decayed. The price of timber has risen in some instances to a figure which makes the use of the present valuable woods almost prohibitive; in other cases the supply is so nearly exhausted that the railroads have been compelled to look about for new timbers. Two solutions offer themselves for this difficulty. One is to use a cheaper grade of ties, but the policy of most of the railroads is against this, as it is quite certain that they would have to be replaced even oftener than now, and it is an open question if anything would be saved in the long run. The other solution is that of treating the ties before being laid with a preservative. Over in France beech ties are used, but not until properly seasoned and preserved. When thoroughly impregnated with tar oils these ties last thirty-five years. The average American tie lasts but five years. The railroads have invited the Bureau of Forestry to make a study of the question to ascertain if the advantage to be gained will warrant the expense of treating the ties in the manner suggested. Whatever other advantage will result, the use of cheaper timbers for this purpose, made possible by seasoning and preserving, is an economic saving to the public at large, because it not only believes the high grade timbers from the demand being made on them, but opens a market for timbers for which there is now little sale.

O. T. D.

Washington, D. C.